

Jack Liu

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EXPERIENCE

BITGO • Software Engineering Intern

May 2023 – Aug 2023 (Ongoing)

- Constructed 3 complete data pipelines over **10 TB** of market and trade data to the **Snowflake** data warehouse using **Kafka**, **Amazon Simple Storage Service**, and **Apache Airflow**
- Revamped and maintained over 15 functions to help clients quickly fetch desired data using **SQL** and **Python**
- Implemented data hashing using **Debezium** to hide sensitive user data from analytics processes

JAMLABS DATA SCIENCE • Software Engineering Intern

Sep 2022 – Dec 2022

- Conserved **over half** of file retrieval costs by allowing users to query CSV and Parquet data through API calls to only select their required rows of data using **ExpressJS** and **AWS Athena** queries
- Established **customer email verifications** using **AWS Simple Email Service** to send email-validating links containing **Script** security tokens to all newly registered accounts
- Implemented a **trial account** with **ExpressJS** backend and **ReactJS** frontend for product demonstrations
- Provided company admins with overarching functions to manage all sub-accounts in one place with **AWS Lambdas**

AXONIFY • Software Engineering Intern

Jan 2022 – Apr 2022

- Enhanced product accessibility and user engagement by adding an **automatic translation system** to Axonify's timeline with **Java** and **Google Cloud Translation API** for non-English speakers
- Implemented a **cache system** for frequent translations with **Java** and **SQL** to improve product efficiency and cost and created options to edit cache settings or clear cache
- Revamped the **error messaging system** to accurately describe problems for customers on the browser application

AXONIFY • Software Developer Intern

May 2021 – Aug 2021

- Effectively **conserved cloud storage** space by implementing an automatic file purging process to delete infrequently accessed or outdated upload files using **Java's JDBC** library and **SQL**
- Streamlined purging legacy code and updating **Java Mockito** unit tests with **Python** scripts across the code base
- Improved customer security by enforcing a **minimum password strength** based on permissions with **Python**

PROJECTS

Crypto and Stock Price Tracker

Sep 2022 – Nov 2022

- Fetched current cryptocurrency and stock prices with a web scraper in **NodeJS** and **Cheerio** to store and update in **JSON** format
- Displayed real-time prices on a **ReactJS** app with links to purchase said cryptocurrencies and stocks

Personal Website

Aug 2022 – Sep 2022

- Created a **JavaScript** website with **ReactJS** and hosted it on **Netlify** to present my projects, resume, and portfolio

Automated Bots for Discord and Twitter

Apr 2020 – Sep 2020

- Developed bots for **Discord** and **Twitter** with **Python** to integrate YouTube Music, track statistics, and respond to users mentions
- Maximized availability of the bots with Heroku hosting

SKILLS

Languages: C++, Java, C, JavaScript, Python, HTML/CSS, SQL

Technologies: Git, AWS, Unix, Terraform, Docker, DBT, ReactJS, Apache Airflow

EDUCATION

University of Waterloo | Bachelor of Software Engineering, Honours

2020 - 2024